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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,114	04/27/2001	Florian Meinhard Konig	KONIG, F-2	1016

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EXAMINER	
ZHENG, EVA Y	
ART UNIT	**PAPER NUMBER**
2634	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/844,114	KONIG, FLORIAN MEINHARD	
	Examiner	Art Unit	
	Eva Yi Zheng	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *1,3-7,14,17-19 and 22-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,8-11,13,16,20,21,25-30* is/are rejected.

7)☒ Claim(s) *12 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. In view of Amendment After Final filed on 8/26/05, prosecution is hereby REOPENED. See forth below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 13, "wherein signals fixing" is unclear and indefinite.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 21, 25-27, 2, 8-11, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Collar (US 5,598,288).

A) Regarding claim 21, Collar discloses a method of transmitting a high frequency signal between a transmitter and a receiver, the method comprising the step of:

a) linking the high frequency signal (RF signal 10 in Fig. 1) with a signal for a natural alternating electromagnetic field (inherent as noise dither signal 16 in Fig. 1) to form a linked signal by inserting the signal for the natural alternating electromagnetic field into gaps of the high frequency signal (adder 14 in Fig. 1); and

b) extracting the high frequency signal from the linked signal in the receiver (abstract; 32, 38 and 42 in Fig.1).

B) Regarding claim 25, Collar discloses a method of transmitting a high frequency signal between a transmitter and a receiver, the method comprising the steps of:

a) linking the high frequency signal (RF signal 10 in Fig. 1) with a signal for a natural alternating electromagnetic field (inherent as noise dither signal 16 in Fig. 1) to form a linked signal (23 in Fig. 1), wherein the signal for the natural alternating magnetic field approximately conforms to an actual weather field (inherent as noise dither signal); and

b) extracting the high frequency signal from the linked signal in the receiver (abstract; 32, 38 and 42 in Fig.1).

C) Regarding claim 26, Collar discloses a method of transmitting a high frequency signal between a transmitter and a receiver, the method comprising the steps of:

a) linking the high frequency signal (RF signal 10 in Fig. 1) with a signal for a natural alternating electromagnetic field (inherent as noise dither signal 16 in Fig. 1) to form a linked signal (23 in Fig. 1), wherein the natural alternating magnetic field conforms to a fair-weather field (inherent as noise dither signal); and

b) extracting the high frequency signal from the linked signal in the receiver (abstract; 32, 38 and 42 in Fig.1).

D) Regarding claim 27, Collar discloses a method of transmitting a high frequency signal between a transmitter and a receiver, the method comprising the step of:

a) linking the high frequency signal (RF signal 10 in Fig. 1) with a signal for a natural alternating electromagnetic field (inherent as noise dither signal 16 in Fig. 1) to form a linked signal (23 in Fig.1);

b) extracting the high frequency signal from the linked signal in the receiver (abstract; 32, 38 and 42 in Fig.1); and

c) extracting the high frequency signal in the receiver from the signal for the natural alternating electromagnetic field having a given spectral time curve (inherent as spectrum analyzer plot in Fig. 2 and 3) stored in a memory of the receiver (inherent as 38 in Fig. 1).

E) Regarding claim 2, Collar discloses the method according to claim 21, wherein the step of linking the high frequency signal with a signal for a natural alternating electromagnetic field comprises mixing the high frequency signal with the signal for the natural alternating electromagnetic field. (14 in Fig.1)

F) Regarding claim 8, Collar discloses the method according to claim 26, wherein said fair-weather field comprises at least one spectral time curve of sferics (Fig. 2 and 3).

G) Regarding claim 9, Collar discloses the method according to claim 26, further comprising the step of adjusting an intensity of a signal fixing said actual weather field

according to the high frequency signal for optimizing a reduction of electrostress (24 in Fig. 1).

H) Regarding claim 10, Collar discloses the method according to claim 26, wherein the natural alternating electromagnetic field comprises at least one Schumann resonance (inherent as a low frequency signal; 16 in Fig.1).

I) Regarding claim 11, Collar discloses the method according to claim 10, wherein the at least one Schumann resonance comprises an intensity adjusted according the high frequency signal for optimizing a reduction of electrostress (24 in Fig.1).

J) Regarding claim 16, Collar discloses the method according to claim 27, wherein Said extracting step further comprises the step of digitally subtracting a selected signal for the natural alternating electromagnetic field from a received mixed signal spectrum (inherent as filter 38 in Fig.1).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 20 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collar (US 5,598,288).

A) Regarding claim 20, Collar discloses all the subject matters above except for the specific teaching of a series of antenna elements in the transmitter and receiver.

However, it is well known that Fiber optics is a popular technology for local-area networks, telephone, radio, cable television (CATV), radar, and satellite links, where it is necessary to comprise antennas in both transmitter and receiver side. Therefore, it is obvious to one of ordinary skill in art to recognize the RF fiber optic system by Collar would transmit and receive signals via a series of antennas, and have at least one Schumann resonance directly fed into a corresponding antenna, depends on communication system design criteria. By doing so, provide efficient and better communication system.

B) Regarding claims 28-30, Collar discloses a method of transmitting a high frequency signal between a transmitter and a receiver, the method comprising the step of:

a) linking the high frequency signal (RF signal 10 in Fig. 1) with a signal for a natural alternating electromagnetic field (inherent as noise dither signal 16 in Fig. 1) to form a linked signal (23 in Fig.1); and

b) extracting the high frequency signal from the linked signal in the receiver (abstract; 32, 38 and 42 in Fig.1).

Collar disclose all the subject matters above except for the specific teaching that this method applies for telecommunication, such as GSM, television signal transmission, radar transmission, and wireless telephone.

Collar's invention applies for fiber optic link communication. It is well known that fiber optics is currently the best long distance communications method because it provides much faster data transfer speeds when compared to traditional interconnection media such as copper wire. Fiber optics is a particularly popular technology for local-area networks, telephone, radio, cable television (CATV), radar, and satellite links. Therefore, it is obvious to one of ordinary skill in art to recognize that the fiber optic link system by Collar can be used for GSM, radar and wireless telephone communication system. By doing so, provide less expensive, fast transmission and receiving rate in a communication system.

Allowable Subject Matter

8. Claims 12 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eva Y Zheng whose telephone number is 571 272-3049. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eva Yi Zheng
Examiner
Art Unit 2634

September 24, 2005

SHUWANG LIU
PRIMARY EXAMINER